

ABSTRACT

An immersion upper layer film composition is provided which exhibits sufficient transparency for the exposure wavelength 248 nm(KrF) and 193 nm(ArF), can form a protective film on the photoresist film without being intermixed with the photoresist film, is not eluted into water used during immersion exposure to maintain a stable film, and can be easily dissolved in an alkaline developer. The composition applied to coat on the photoresist film when using an immersion exposure device which is irradiated through water provided between a lens and the photoresist film, the composition comprises a resin forming a water-stable film during irradiation and being dissolved in a subsequent developer, and a solvent containing a monovalent alcohol having 6 or less carbon atoms, and the resin contains a resin component having an alcoholic hydroxyl group on the side chain containing a fluoroalkyl group on at least the carbon atom of α -position.